Normalized Final Muscle Mass, Protein Content and Protein Concentration in AEM Control, Flight and Hindlimb-suspended Animals

Group	Mass	Protein	Protein
	(mg/100 g body wt)		(mg/mg muscle)
Soleus			
AEM Control	40.1 ± 0.6	5.51 ± 0.20	0.139 ± 0.004
Flight	24.8 ± 0.6[a,d]	2.93 ± 0.07[a,d]	0.118 ± 0.002[c]
Suspended	28.7 ± 0.8[a]	3.73 ± 0.13[a]	0.131 ± 0.006
Plantaris			
AEM Control	86 ± 4	10.08 ± 0.40	0.130 ± 0.004
Flight	65 ± 3[c]	8.40 ± 0.21[c]	0.138 ± 0.004
Suspended	76 ± 2[c]	10.73 ± 0.23	0.130 ± 0.004
Gastrocnemius			
AEM Control	398 ± 9	47.5 ± 1.5	0.130 ±0.004
Flight	333 ± 11[b]	44.4 ± 2.3[c]	0.141 ± 0.005
Suspended	362 ± 4[b]	49.0 ± 1.6	0.129 ± 0.003
Extensor Digitorum Longus			
AEM Control	46.5 ± 0.8	6.28 ± 0.17	0.137 ± 0.005
Flight	44.3 ± 1.0	5.66 ± 0.14[d]	0.136 ± 0.002
Suspended	48.5 ± 0.7	6.77 ± 0.23	0.128 ±0.004
Tibialis Anterior			
AEM Control	167 ± 5	21.1 ± 0.5	0.125 ±0.005
Flight	167 ± 5	20.1 ± 0.5[d]	0.128 ± 0.004
Suspended	182 ± 4	24.5 ± 0.8[c]	0.124 ±0.005

[a] $p<0.001$ versus AEM control by ANOVA with Bonferroni correction
[b] $p<0.01$ versus AEM control by ANOVA with Bonferroni correction
[c] $p<0.05$ versus AEM control by ANOVA with Bonferroni correction
[d] $p<0.05$ versus suspended by ANOVA with Bonferroni correction

AEM control animals were housed in the Animal Enclosure Module at the University of Arizona animal facility under the same temperature conditions, light-dark cycle, and duration as flight animals (Tischler et al J. Appl. Physiol. 74:2161, 1993). Flight animals were randomly assigned and loaded into their AEM at 2300 h EDT, September 11, 1991 (launch-21h). The final flight values were determined, between 2h 8 min and 3h 22 min after landing. Suspended animals were selected from the same shipment as the AEM control group. Samples were prepared for protein analysis (Tischler et al J. Appl. Physiol. 74:2161, 1993) by the Lowry procedure (Lowry et al J. Biol. Chem. 193:265, 1951).